



**6712-01**

**FEDERAL COMMUNICATIONS COMMISSION**

**47 CFR Parts 73 and 74**

**[MB Docket No. 13-249; FCC 15-142]**

**Revitalization of the AM Radio Service**

**AGENCY:** Federal Communications Commission.

**ACTION:** Proposed rule.

**SUMMARY:** In this document, the Commission adopted a Further Notice of Proposed Rulemaking (FNPRM), in which it sought comment on several proposals designed to revitalize the AM broadcast radio service, or to reduce burdens on AM broadcasters. The Commission further adopted a Notice of Inquiry (NOI), in which it sought comment on two proposals designed to revitalize the AM broadcast radio service. One of the proposals, regarding increased utilization of the AM expanded band, was suggested by several commenters in response to the NPRM in this proceeding. The second proposal, for relaxation of the Commission's main studio rules for AM stations, was suggested by a commenter and supported by others.

**DATES:** Comments may be filed on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]** and reply comments may be filed on or before **[INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Written comments on the Paperwork Reduction Act proposed information collection requirements must be submitted by the public, Office of Management and Budget (OMB), and other interested parties on or before **[INSERT**

**DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].**

**ADDRESSES:** You may submit comments, identified by MB Docket No. 13-249, by any of the following methods:

- **Electronic Filers:** Comments may be filed electronically using the Internet by accessing the Commission's Electronic Comment Filing System (ECFS), through the Commission's Web site <http://fjallfoss.fcc.gov/ecfs2/>. Filers should follow the instructions provided on the Web site for submitting comments. For ECFS filers, in completing the transmittal screen, filers should include their full name, U.S. Postal service mailing address, and **MB Docket No. 13-249**.
- **Paper Filers:** Parties who choose to file by paper must file an original and one copy of each filing. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although the Commission continues to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

For detailed instructions for submitting comments and additional information on the rulemaking process, see the SUPPLEMENTARY INFORMATION section of this document.

**FOR FURTHER INFORMATION CONTACT:** Peter Doyle, Chief, Media Bureau, Audio Division, (202) 418-2700; Thomas Nessinger, Senior Counsel, Media Bureau, Audio Division, (202) 418-2700. For additional information concerning the Paperwork

Reduction Act (PRA) information collection requirements contained in this document, contact Cathy Williams at 202-418-2918, or via the Internet at [Cathy.Williams@fcc.gov](mailto:Cathy.Williams@fcc.gov).

**SUPPLEMENTARY INFORMATION:** This is a summary of the Commission's Further Notice of Proposed Rulemaking, FCC 15-142, adopted October 21, 2015, and released October 23, 2015.

### **Initial Paperwork Reduction Act of 1995 Analysis**

The FNPRM contains proposed information collection requirements subject to the PRA, Public Law 104-13. OMB, the general public, and other Federal agencies are invited to comment on the proposed new and modified information collection requirements contained in this FNPRM.

Comments on the proposed information collection requirements should address: (a)

Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

Pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4), the FCC seeks specific comment on how it might "further reduce the information collection burden for small business concerns with fewer than 25 employees."

In addition to filing comments with the Secretary, a copy of any Paperwork Reduction Act comments on the information collection requirements contained herein should be

submitted to Cathy Williams, Federal Communications Commission, Room 1-C823, 445 12th Street, SW, Washington, DC 20554, or via the Internet to [Cathy.Williams@fcc.gov](mailto:Cathy.Williams@fcc.gov), and to Nicholas A. Fraser, Office of Management and Budget (OMB), via the Internet to [Nicholas\\_A.\\_Fraser@omb.eop.gov](mailto:Nicholas_A._Fraser@omb.eop.gov).

To view a copy of this information collection request (ICR) submitted to OMB: (1) go to the web page <http://www.reginfo.gov/public/do/PRAMain>, (2) look for the section of the Web page called "Currently Under Review," (3) click on the downward-pointing arrow in the "Select Agency" box below the "Currently Under Review" heading, (4) select "Federal Communications Commission" from the list of agencies presented in the "Select Agency" box, (5) click the "Submit" button to the right of the "Select Agency" box, (6) when the list of FCC ICRs currently under review appears, look for the Title of this ICR and then click on the ICR Reference Number. A copy of the FCC submission to OMB will be displayed.

The proposed information collections are as follows:

OMB Control Number: 3060-0075.

Title: Application for Transfer of Control of a Corporate Licensee or Permittee, or Assignment of License or Permit, for an FM or TV Translator Station, or a Low Power Television Station, FCC Form 345.

Type of Review: Revision of a currently approved collection.

Respondents: Business or other for-profit entities; Not for profit institutions; Local or Tribal Government.

Number of Respondents and Responses: 1,700 respondents; 2,700 responses.

Estimated Time per Response: 0.084-1.25 hours.

Frequency of Response: Third party disclosure requirement and on occasion reporting requirement.

Total Annual Burden: 2,667 hours.

Total Annual Cost: \$3,958,125.

Obligation to Respond: Required to obtain or retain benefits. The statutory authority for this collection of information is contained in Sections 154(i) and 310 of the Communications Act of 1934, as amended.

Nature and Extent of Confidentiality: There is no need for confidentiality with this collection of information.

Privacy Act Impact Assessment: No impact(s).

Needs and Uses: Filing of the FCC Form 345 is required when applying for authority for assignment of license or permit, or for consent to transfer of control of a corporate licensee or permittee for an FM or TV translator station, or low power TV station.

This collection also includes the third party disclosure requirement of 47 CFR 73.3580 (OMB approval was received for Section 73.3580 under OMB Control Number 3060-0031). 47 CFR 73.3580 requires local public notice in a newspaper of general circulation in the community in which the station is located or providing notice over the air of the filing of all applications for assignment of license/permit. This notice must be completed within 30 days of the tendering of the application. A copy of the newspaper notice or a

record of the broadcast notice and the application must be placed in the public inspection file.

On June 29, 2009, the Commission adopted a Report and Order, Amendment of Service and Eligibility Rules for FM Broadcast Translator Stations, MB Docket No. 07-172, FCC 09-59, 24 FCC Rcd 9642 (2009), 74 FR 45126, Sept. 1, 2009, 74 FR 46382, Sept. 9, 2009. In the 2009 Report and Order, the Commission adopted changes to the FM translator rules that allowed AM stations to use authorized FM translator stations to rebroadcast the AM signal locally, retransmitting their AM programming as a “fill-in” service. The adopted cross-service translating rules limited FM translators to providing “fill-in” service only, specifically within the AM primary station’s authorized service area

AM radio stations use Form 345 to apply for authority to assign or transfer such fill-in FM translator stations. Consistent with actions taken by the Commission in the 2009 Report and Order, the following changes were made to Form 345: Section III of Form 345 included a new certification concerning compliance with the AM station “fill-in” service requirements. Specifically, in the AM service, applicants certify that the coverage contour (1 mV/m) of the FM translator station is contained within the lesser of: (a) the 2 mV/m daytime contour of the AM primary station being rebroadcast, or (b) a 25-mile radius centered at the AM station’s transmitter site.

On October 21, 2015, the Commission adopted a First Report and Order, Further Notice of Proposed Rulemaking, and Notice of Inquiry, in Revitalization of the AM Radio Service, MB Docket No. 13-249, FCC 15-142. In the Further Notice of Proposed

Rulemaking component of this rulemaking proceeding (FNPRM), the Commission proposes to make the following rule (and Form) changes to this information collection: modify Section 74.1201(g) of the rules to provide that the coverage contour (1 mV/m) of an FM translator station rebroadcasting an AM radio station as its primary station must be contained within the greater of either the 2 mV/m daytime contour of the AM station, or a 25-mile radius centered at the AM station's transmitter site, but that in no event may the FM translator's 1 mV/m coverage contour extend beyond a 40-mile (64 km) radius centered at the AM station's transmitter site.

Consistent with actions proposed by the Commission in the FNPRM, the following change is made to Form 345: Section III of Form 345 includes a new certification concerning compliance with the new AM station "fill-in" service requirements.

Specifically, applicants will now certify that the 1 mV/m coverage contour of the FM translator station is contained within the greater of either: (a) the 2 mV/m daytime contour of the AM primary station being rebroadcast, or (b) a 25-mile radius centered at the AM station's transmitter site, but the FM translator's 1 mV/m contour may not extend beyond a 40-mile radius centered at the AM station's transmitter site. The instructions for Section III – Assignee/Transferee have been revised to assist applicants with completing the modified question.

With this submission, the Commission is currently seeking to obtain OMB approval for the proposed revisions to 47 CFR 74.1201(g) and FCC Form 345 for this information collection. These revisions will not increase the number of respondents, number of responses, annual burden hours and annual cost for this collection.

OMB Control Number: 3060-0405.

Title: Application for Authority to Construct or Make Changes in an FM Translator or FM Booster Station, FCC Form 349.

Form Number: FCC Form 349.

Type of Review: Revision of a currently approved collection.

Respondents: Business or other for-profit; State, Local or Tribal Government; Not-for-profit institutions.

Number of Respondents and Responses: 1,200 respondents; 2,400 responses.

Estimated Time per Response: 1 - 1.5 hours.

Frequency of Response: On occasion reporting requirement; Third party disclosure requirement.

Obligation to Respond: Required to obtain or retain benefits. The statutory authority for this information collection is contained in Sections 154(i), 303 and 308 of the Communications Act of 1934, as amended.

Total Annual Burden: 4,500 hours.

Total Annual Cost: \$4,674,600.

Privacy Act Impact Assessment: No impact(s).

Nature and Extent of Confidentiality: There is no need for confidentiality with this information collection.

Needs and Uses: FCC Form 349 is used to apply for authority to construct a new FM



translator or FM booster broadcast station, or to make changes in the existing facilities of such stations.

Form 349 also contains a third party disclosure requirement, pursuant to 47 CFR 73.3580. This rule requires stations applying for a new broadcast station, or to make major changes to an existing station, to give local public notice of this filing in a newspaper of general circulation in the community in which the station is located. This local public notice must be completed within 30 days of the tendering of the application. This notice must be published at least twice a week for two consecutive weeks in a three-week period. In addition, a copy of this notice must be placed in the station's public inspection file along with the application, pursuant to 47 CFR 73.3527. This recordkeeping information collection requirement is contained in OMB Control No. 3060-0214, which covers Section 73.3527.

On June 29, 2009, the Commission adopted a Report and Order, Amendment of Service and Eligibility Rules for FM Broadcast Translator Stations, MB Docket No. 07-172, FCC 09-59, 24 FCC Rcd 9642 (2009), 74 FR 45126, Sept. 1, 2009, 74 FR 46382, Sept. 9, 2009. In the 2009 Report and Order, the Commission adopted changes to the FM translator rules that allowed AM stations to use authorized FM translator stations to rebroadcast the AM signal locally, retransmitting their AM programming as a "fill-in" service. The adopted cross-service translating rules limited FM translators to providing "fill-in" service only, specifically within the AM primary station's authorized service area.

AM radio stations use Form 349 to apply for authorizations to operate such fill-in FM translator stations. Consistent with actions taken by the Commission in the 2009 Report and Order, the following changes were made to Form 349: Sections II and III of Form 349 included new certifications concerning compliance with the AM station “fill-in” service requirements. Specifically, in the AM service, applicants certify that the coverage contour (1 mV/m) of the FM translator station is contained within the lesser of: (a) the 2 mV/m daytime contour of the AM primary station being rebroadcast, or (b) a 25-mile radius centered at the AM station’s transmitter site.

On October 21, 2015, the Commission adopted a First Report and Order, Further Notice of Proposed Rulemaking, and Notice of Inquiry, in Revitalization of the AM Radio Service, MB Docket No. 13-249, FCC 15-142. In the Further Notice of Proposed Rulemaking component of this rulemaking proceeding (FNPRM), the Commission proposes to make the following rule (and Form) changes to this information collection: modify 47 CFR 74.1201(g) of the rules to provide that the coverage contour (1 mV/m) of an FM translator station rebroadcasting an AM radio station as its primary station must be contained within the greater of either the 2 mV/m daytime contour of the AM station, or a 25-mile radius centered at the AM station’s transmitter site, but that in no event may the FM translator’s 1 mV/m coverage contour extend beyond a 40-mile (64 km) radius centered at the AM station’s transmitter site.

Consistent with actions proposed by the Commission in the FNPRM, the following changes are made to the Form 349: Sections II and III of Form 349 include new certifications concerning compliance with the new AM station “fill-in” service

requirements. Specifically, applicants will certify that the 1 mV/m coverage contour of the FM translator station is contained within the greater of either: (a) the 2 mV/m daytime contour of the AM primary station being rebroadcast, or (b) a 25-mile radius centered at the AM station's transmitter site, but the FM translator's 1 mV/m contour may not extend beyond a 40-mile radius centered at the AM station's transmitter site. The instructions for Sections II and III have been revised to assist applicants with completing the modified questions.

With this submission, the Commission is currently seeking to obtain OMB approval for the proposed revisions to 47 CFR 74.1201(g) and FCC Form 349 for this information collection. These revisions will not increase the number of respondents, number of responses, annual burden hours and annual cost for this collection.

### **Synopsis of Further Notice of Proposed Rule Making**

1. A number of commenters in this proceeding advocated reducing daytime, nighttime, and critical hours protection afforded to Class A AM stations, which operate with up to 50 kilowatts of power, day and night, and have large extended service areas, especially at night when skywave propagation allows signals to travel hundreds of miles. As a result, during daytime hours, over 200 licensed Class B and Class D AM stations are required to reduce power and/or change to a directional antenna system to meet the required critical hours protection afforded to Class A stations. During nighttime hours – if permitted nighttime operation at all – other stations often must invest in complex directional arrays to protect one of the 73 Class A stations, and/or must substantially reduce their power, sometimes resulting in their having only secondary nighttime facilities. Even for those Class B stations that are protected from interference by other

AM stations at night, this often results in sub-standard nighttime coverage, in order to protect the secondary service area of a larger station a considerable distance, and often many states away. Commenters argue that they could provide better service, with more power to overcome the local noise floor, if the protections to Class A stations were relaxed.

2. Class A stations have traditionally provided wide-area service to different regions of the United States, including rural areas, and to travelers driving through their relatively large coverage areas. The high power and large extended service areas of these stations have also proved invaluable in emergencies, such as Hurricane Katrina and its aftermath. Some commenters, however, note that the utility of high-powered, wide-area AM stations has waned since the early days of radio, when the FM service was nonexistent or underutilized, more of the population lived outside of major metropolitan areas, and there were significantly fewer media choices than there are today. Because of this, many commenters believe that the current protection afforded to Class A stations should be reduced, in order to allow other, more local stations to add or increase day and nighttime power to their listening areas. The tradeoff between commenters urging caution in taking any steps that would diminish protection to Class A stations and those arguing that large protected coverage areas for Class A stations are unnecessary appears to be whether the Commission should take steps that would deprive Class A stations of listeners far outside of their primary service areas, if those steps would allow substantial numbers of other stations to improve their service, both day and night, to their communities of license and adjacent areas.

3. While the wide-area service of Class A stations has historically proved to be beneficial, the Commission has seen fit in the past to reduce protection to their skywave service (see, e.g., Clear Channel Broadcasting in the AM Broadcast Band, Report and Order, 78 F.C.C.2d 1345, 1364 (1980), in which the Commission noted that increasing spectrum demands required that protection of such stations (then designated Class I-A stations) beyond the nighttime 0.5 mV/m-50 percent contour, as well as certain restrictions on adjacent-channel stations, be abolished). In this proceeding, the overriding concern is the need for existing AM stations to overcome an increasing noise floor that inhibits local service, both day and night. While reducing protection to a Class A AM station may, in fact, reduce the coverage of that station, the areas of reduced coverage would be located at great distances from the transmitter and from the metropolitan area that constitutes the station's primary service area. At the same time, the reduction in protection may well allow other stations to increase their power to better serve their communities and, in the case of some stations, allow for the first-ever fulltime AM service to those communities. The Commission's goal of localism suggests that service from a local news and information source should be preferred over better reception of a more distant signal.

4. The Commission tentatively concludes, therefore, that (1) all Class A stations should be protected, both day and night, to their 0.1 mV/m groundwave contour, from co-channel stations; (2) all Class A stations should continue to be protected to the 0.5 mV/m groundwave contour, both day and night, from first adjacent channel stations; and (3) the critical hours protection of Class A stations should be eliminated completely. The Commission seeks comment on these proposals, specifically on the populations that

would lose service from Class A stations under this proposal and, to the extent ascertainable, whether such populations currently avail themselves of the service that would be lost. The Commission also seeks data on areas and populations in the United States, if any, that receive service only from Class A AM stations, whether day or night. Conversely, it requests specific comment as to the numbers of stations that would be able to increase power, daytime and nighttime, under this proposal and what populations would gain service from those power increases. Additional comment is sought concerning the net effect on listeners that could result from the combination of reduced protection to Class A stations and power increases by co- and adjacent-channel stations that this proposal would allow. Would, in fact, such power increases cause more loss of service to listeners of Class A stations than gains in such service to listeners of upgrading stations? Would current listeners of Class A skywave service, not located near stations able to avail themselves of power increases due to this proposal, nevertheless experience a reduction in skywave service from Class A stations? Would the proposed changes disproportionately affect listeners in rural and/or tribal areas? What effects, if any, would changes in protection to Class A stations have on EAS Primary Entry Point stations during emergencies? Alternatively, should the Commission consider another level of protection to Class A stations, whether greater or less than that proposed and, if so, what should that protection be? The Commission also seeks comment on whether critical hours protection, if not eliminated, should alternatively be modified? Finally, the Commission seeks comment on any costs that are likely to result from adoption of these proposals or from any alternatives proposed by commenters.

5. Several commenters to the NPRM also proposed that the Commission return to the nighttime root-sum-square (RSS) prediction method in existence before the Commission's 1991 rule changes. These prediction methods are used to calculate values of both interfering field strengths from other AM stations and nighttime interference-free (NIF) coverage. Prior to 1991, nighttime RSS values of interfering field strengths and nighttime interference-free coverage were based on calculating the RSS of all interfering signals using the 50 percent exclusion method, considering only co-channel interfering signals. In the 1991 Technical Assignment Criteria order (6 FCC Rcd 6273 (1991)), the Commission changed its method of calculation to include adjacent-channel signals, and to use a tiered system of RSS calculations. Some commenters observed that, despite the Commission's intentions in Technical Assignment Criteria, which were to decrease station-to-station interference in the AM service, in practice the effect was to stifle facility improvements, resulting in very little in the way of decreased interference. They contend, for example, that the 25 percent exclusion method complicates nighttime allocation calculations and protection requirements and reduces flexibility for AM station improvement and relocation; that consideration of adjacent-channel stations in making interference calculations is unnecessary, claiming that the Commission instituted this rule in anticipation of wide-band AM receivers that never made it to market; and that a return to the 50 percent exclusion method used prior to 1991, considering only the skywave contributions to RSS calculations of co-channel stations, would enable AM broadcasters to improve their facilities and signals and, thus, overcome the increasing noise floor.

6. The Commission agreed that the 1991 nighttime skywave interference regulations were well-intentioned but, in retrospect, did not achieve their intended goals

and have resulted in unintended adverse consequences, chiefly by impeding facility improvements that are more necessary now than 24 years ago, because the noise floor has increased as much as or more than station-to-station interference, and increasing signal strength to a station's primary service area has become more of a priority than maintenance of rules that offer a small return on interference reduction, compared to the burden they impose on signal improvement. The Commission therefore tentatively concluded that it should roll back the 1991 rule changes as they pertain to calculation of nighttime RSS values of interfering field strengths and NIF service, by amending 47 CFR 78.182(k) to return to predicting the NIF coverage area using only the interference contributions from co-channel stations and the 50 percent exclusion method. The Commission seeks comment on this proposal, and invites in particular comment from parties with differing views, or that have technical evidence demonstrating the effects on inter-station interference of a return to the pre-1991 rules for calculating nighttime skywave interference. In addition, the Commission seeks comment on any costs that commenters believe would result from this proposal.

7. Commenters also proposed changes to 47 CFR 73.37(a), the rule providing daytime protection to AM stations. The rule currently specifies a 26 dB daytime desired to undesired (D/U) protection ratio for co-channel stations, a 6 dB D/U daytime protection ratio for first adjacent channel stations, and a 0 dB daytime D/U protection ratio for second and third adjacent channel stations. Commenters proposed that the Commission return to the pre-1991 0 dB daytime 1:1 protection ratio for first adjacent channels; change second adjacent channel groundwave protection; and eliminate third



adjacent channel groundwave protection. Additionally, several commenters suggested changes to the daytime protected contours for Class B, C, and D stations.

8. The Commission tentatively concludes that these rule changes should be adopted. The proposed 0 dB daytime 1:1 first adjacent channel protection ratio was the pre-1991 standard, and the post-1991 protection ratio does not appear to allow for sufficient signal strength to overcome current levels of environmental noise. Likewise, because third adjacent channel interference is relatively insignificant compared to environmental sources of interference, it would seem prudent to eliminate third adjacent channel groundwave protection and change second adjacent channel groundwave protection to match the current levels for third adjacent channel protection, thus allowing AM stations to increase power to overcome increased levels of environmental noise. Changing the daytime primary service contour for Class B, C, and D stations to the 2 mV/m contour harmonizes the protection with the definition of service area that was adopted in the Second Order on Reconsideration in the Rural Radio proceeding (27 FCC Rcd 12829, 12838 (2012)), and would allow AM broadcasters greater flexibility to make station modifications designed to increase signal strength to their primary service areas. The Commission therefore proposes to revise 47 CFR 73.37(a) to reflect the aforementioned changes to daytime protected contours for Class B, C, and D AM stations, and seeks comment on this proposal. Would the proposed reductions in protection result in greater flexibility for AM stations to improve their signals, or would they merely increase inter-station interference? Would the net effect be beneficial or harmful to AM broadcasters and listeners? To the extent possible, commenters should

provide technical data in support of their arguments. In addition, commenters should discuss and, if possible, quantify any costs they believe the proposal would entail.

9. Several commenters to the NPRM request that the Commission reconsider the rules for locating cross-service fill-in FM translators. Currently, such translators must be located such that the 60 dB $\mu$  contour of any such FM translator station must be contained within the lesser of (a) the 2 millivolts per meter (mV/m) daytime contour of the AM station, or (b) a 25-mile radius centered at the AM transmitter site. Commenters argue that the current rule is too restrictive. Some commenters maintain that the 25-mile limitation is arbitrary, or that it unfairly penalizes stations located far from cities due to land costs or those that have deep nulls in their directional patterns. Others advocate eliminating the 25-mile restriction and would have us allow the translator to be sited anywhere within the 2 mV/m contour, and others suggest even more flexibility.

10. When the Commission adopted the current limits on siting of cross-service translators re-broadcasting AM stations, it re-affirmed that FM translators re-broadcasting AM stations were intended to fill service voids rather than to expand service, and that the adopted limits were to “ensure that fill-in cross-service translators are used in the AM station's core market area, rather than in a fringe area that may be part of or near another radio market.” Amendment of Service and Eligibility Rules for FM Broadcast Translator Stations, Report and Order, 24 FCC Rcd 9642, 9658-59 (2009). In the FNPRM, however, the Commission agreed that some additional degree of flexibility is appropriate, especially given the factual situations (e.g., highly directional antenna patterns with deep signal nulls) described by some commenters. The Commission also wished to continue to limit cross-service translator use to an AM station's core market. It therefore proposes

to modify 47 CFR 74.1201(g) to provide that the coverage contour (1 mV/m) of an FM translator rebroadcasting an AM radio broadcast station as its primary station must be contained within the greater of either the 2 mV/m daytime contour of the AM station or a 25-mile (40 km) radius centered at the AM transmitter site, but that in no event may the translator's 1 mV/m coverage contour extend beyond a 40-mile (64 km) radius centered at the AM transmitter site. The Commission stated that this proposal provides sufficient flexibility to provide useful signal coverage, while not allowing a cross-service fill-in translator to extend the station's coverage beyond its core service area. The Commission invites further comment on this proposal, including comment on any costs that commenters believe are likely to arise from the proposal.

11. Partial proof of performance measurements are required for AM stations using directional antennas whenever the licensee has reason to believe that the radiated fields may be exceeding the limits for which the station is authorized, and whenever minor directional antenna system repairs are made that result in certain changes to the station's licensed operating parameters. Some commenters request that 47 CFR 73.154, the current rule governing partial proof of performance field strength measurements for AM directional antenna arrays, be modified to require measurements only on radials containing a monitoring point. Currently, the rule requires field strength measurements on all radials with a monitoring point, as well as on radials from the latest complete field strength proof of performance that are adjacent to the monitored radials, if the array has fewer than four monitored radials. Proponents claim that eliminating the requirement to take measurements on non-monitored radials will reduce the cost to maintain AM directional antenna systems in working order. The Commission agreed that the proposed

reduction in measured radials would result in a cost savings for directional antenna system maintenance for AM broadcasters, and would not result in more AM directional antenna systems being out of adjustment. It therefore tentatively concludes, and proposes, that 47 CFR 73.154(a) be modified accordingly. The Commission seeks comment on this proposal, including comment on whether and to what extent the proposed rule modification would reduce costs to AM broadcasters employing directional antenna systems.

12. In 2008, the Commission adopted rules permitting use of Method of Moments (MoM) computer modeling to verify the performance of AM station directional antenna systems. Since then, over 220 MoM directional antenna proofs of performance have been prepared by AM station licensees and their engineers and submitted to the Commission in support of AM station applications for license. Based on their experience gained in the seven years since the adoption of the MoM proof rules, several technical commenters propose the following changes to the AM MoM proof rules: (1) eliminate or modify the recertification measurements requirements and removal of base sampling devices for periodic testing in 47 CFR 73.155; (2) eliminate the requirement for reference field strength measurements (47 CFR 73.151(c)(3)); (3) eliminate the requirement for surveying existing directional antenna arrays as long as tower geometry is not being modified and no new towers are being added to the array; (4) clarify that 47 CFR 73.151(c)(1)(viii) applies only when total capacitance used to model base region effects exceeds 250 pF and modify same to apply only when base current sampling is used; (5) Permit use of MoM modeling for skirt-fed towers; (6) Change MoM rules with regard to re-proofing when antennas are added to towers; and (7) Eliminate requirement

for current distribution measurements for top-loaded or other unusual antenna configurations when MoM or other numerical analysis method is used to determine antenna characteristics.

13. Based on the Commission's experience with MoM proofs over the past seven years, it believed that, except as noted below, the changes listed above are well-founded, would improve the quality of the MoM proofs submitted to the Commission, would not result in inferior adjustments of AM directional antenna arrays, and would eliminate some unnecessary expenses for directional antenna array maintenance by AM station licensees. It therefore tentatively concludes that the above-listed procedural and rule changes, with the exception of the elimination of reference field strength measurements, should be adopted, and invites comment on these changes, particularly from AM broadcasters operating with directional antenna arrays. Rather than eliminate reference field strength measurements, which provide the only external verification that a directional antenna array is operating properly, the Commission tentatively concludes and proposes that 47 CFR 73.151(c)(3) be modified to require reference field strength measurements when the initial license application is submitted for a directional antenna system based on computer modeling and sample system verification. Subsequent licenses for the same directional antenna system and physical facilities will not require submission of new reference field strength measurements. The Commission seeks comment on whether, instead of eliminating recertification measurements, it should modify the rules to require them within a specific time period near, but prior to, the submission of the station's license renewal application, or at some other time interval. What constraints should the Commission impose on the physical model of a

skirt-fed antenna element in the MoM computer program? Due to the complexity of modeling a skirt-fed tower, should it require use of specific MoM software to model them? What requirements should it specify for sampling systems for skirt-fed antenna elements? What costs, if any, are likely to arise as a result of any of the foregoing proposals?

14. In 1991, the Commission adopted rules and procedures for initial licensing of stations in the 1605-1705 kHz AM band (Expanded Band). In opening up the Expanded Band, the Commission's intent was to selectively open the ten Expanded Band frequencies to those existing AM stations that most significantly contributed to congestion and interference in the standard AM band, removing interference from the standard band and providing those stations with more robust, interference-free service in the Expanded Band. To ease the financial uncertainty of migrating to the then-new and untested Expanded Band, the Commission established a five-year transition period, during which migrating stations would hold licenses in both the Expanded Band and standard AM band, and could simulcast programming over both. This five-year period was set forth in a condition to each Expanded Band license, and began to run as of the date of initial licensing in the Expanded Band. After the five-year transition period, each dual-station licensee would be required to surrender either its standard band or its Expanded Band license. The Commission has never abandoned the requirement that the dual standard/Expanded band stations relinquish one of their authorizations, and many such stations have done so. The 25 remaining such station pairs, listed in Appendix F to the FNPRM, negate the Commission's goal to reduce interference in the standard AM band, and their retention of both authorizations disserves the other licensees who

complied with the relinquishment requirement. A number of the stations still holding dual standard band/Expanded Band authorizations have filed requests for waiver of the surrender condition and prohibition against sale of one of the authorizations.

15. Given the Commission's consideration, in a Notice of Inquiry that follows the FNPRM, of further utilization of the Expanded Band, along with its general concern for revitalization of the AM service, there is no justification for allowing licensee retention of high-interfering standard band stations along with the Expanded Band stations meant to replace them. The Commission therefore tentatively concludes that any licensee with dual standard/Expanded Band authorizations should be required to surrender one of the two authorizations within one year of release of a future Report and Order in this proceeding adopting this proposal. The Commission tentatively concludes that the required election should be made by the station licensee in writing, by letter delivered to the Office of the Secretary, with copy to the Media Bureau, Audio Division, not later than twelve months following release of a future Report and Order adopting this proposal, or such other date as is established in the Report and Order and/or in any notice delivered to the licensee by the Media Bureau. The Commission further tentatively concludes that, should a station not make the election regarding which of the two authorizations it wishes to retain within the required time period, its standard band authorization should be canceled, and the station required to operate only as authorized in the Expanded Band. The Commission seeks comment on these proposals, including any comments in favor of licensee retention of dual authorizations, comments on whether it should adopt a shorter or longer deadline for the required election, comments regarding the effect of such retention of dual authorizations on the AM service generally and the Expanded Band

specifically, and comments on any costs associated with surrender of these authorizations.

### **Synopsis of Notice of Inquiry**

16. Utilization of AM Expanded Band. In Review of the Technical Assignment Criteria for the AM Broadcast Service, Report and Order, 6 FCC Rcd 6273, 6302-23 (1991), 56 FR 64842 (Dec. 12, 1991) (Technical Assignment Criteria), the Commission established rules and policies for stations initially licensed in the Expanded AM Band (1605-1705 kHz) (Expanded Band), including technical rules. See generally Technical Assignment Criteria, 6 FCC Rcd at 6311-14, 6321-23. For example, it decided to administer channels in the Expanded Band on an allotment basis based on fixed technical parameters, similar to allotments in the FM broadcast band, rather than on an assignment basis as in the standard AM band, in which the technical facilities of each station are uniquely designed to avoid interference to other stations on the band. 47 CFR 73.30. A total of 88 Expanded Band channels were originally allotted, and licenses were granted to 54 stations that migrated from the standard AM band to the Expanded Band. The Commission proposed, in the Further Notice of Proposed Rule Making (FNPRM) in this proceeding, to require the remaining 25 dual standard-Expanded Band station pairs to surrender one authorization each. Now that it has had experience with actual, operating Expanded Band AM stations, the Commission inquires whether to open up the Expanded Band to additional stations, and under what conditions.

17. Several commenters remark that the Expanded Band is underutilized and should be opened up to more stations. Some prefer, as before, that the Expanded Band be used for stations migrating from the standard band; others believe that preference should



first be given to applicants for new AM stations, licensed daytime-only AM stations, or licensed or new AM stations proposing all-digital operation. Most who address the Expanded Band state that stations in that band should be assigned in the same way they are assigned in the standard AM band, rather than continuing the allotment procedures currently used in the Expanded Band. Commenters also urge that a station migrating from the standard band to the Expanded Band relinquish its standard band license shortly after initiating Expanded Band service. Although many commenters address the use of the Expanded Band in helping to revitalize the AM service, there are a number of procedural and practical decisions to be made before proposing rules for further utilization of that band. The Commission believes that a more complete record is needed before proposing rules regarding further expansion of the 1605-1705 kHz band.

18. As a threshold matter, the Commission asks commenters whether they believe that opening the Expanded Band to further development would be beneficial to revitalization of the AM service. Assuming agreement with that premise, who should be allowed to receive authorizations in the Expanded Band? Should preference be given to new stations, to migrators from the standard band, to stations planning all-digital operation, or should some other criterion be established? If the Expanded Band were opened to new stations, an auction filing window would need to be opened, and mutually exclusive applications would be subject to all competitive bidding procedures, including threshold Section 307(b) comparisons and possible auctions. Additionally, if the Expanded Band were opened to major modifications, any mutually exclusive groups including major modification applications would have the opportunity for settlements or technical resolutions. 47 CFR 73.5002(d)(1), (2). If the Commission were to reserve the

Expanded Band for migrators from the standard AM band, should it open a window, waive the major change rule, and allow migrators to apply as minor modifications on a first-come, first-served basis, or use some other mechanism (as, for example, the initial assignment of stations to the Expanded Band by prioritizing major interferers)? With regard to migrating stations, the Commission tentatively agrees with those commenters who have suggested that, in the event such migration is allowed, a “flash cut” from the standard band authorization to the Expanded Band operation should take place, that is, the standard band authorization would be relinquished upon commencing Expanded Band transmissions. The Commission seeks other views on this matter, however.

19. With regard to Expanded Band technical facilities, currently stations in the Expanded Band are allotted on a minimum distance separation standard similar to FM stations, rather than the contour-protection procedures used for standard band AM stations. As noted in Technical Assignment Criteria, assigning channels based on contour protection maximizes the number of stations on each channel, whereas allotting stations based on spacing was believed to promote a higher-quality technical service in the Expanded Band. 6 FCC Rcd at 6311-12. Commenters favoring opening up the Expanded Band overwhelmingly prefer instituting contour protection standards. The Commission seeks comment on the relative merits of each method of channel assignment or allotment. Additionally, to the extent commenters favor contour protection, they should also address whether compliance with contour protection standards should be limited to use of M3 ground conductivity for contour prediction, or should the Commission allow use of measured ground conductivities in predicting contours?

20. The Commission also seeks comment on whether to allow other classes and powers of stations (except for Class D stations, which are no longer authorized), to the extent permitted by our international agreements, or whether it should authorize the same power (e.g., 10 kW day / 1 kW night) for all new Expanded Band stations. A related question would be whether to allow complex directional patterns in the Expanded Band or limit applications to non-directional and simple directional (i.e., no more than three-tower array) stations. If commenters were to favor limiting the Expanded Band to all-digital stations, the Commission would seek comment as to the contour protections and allocation standards for all-digital operation. At the moment, testing is continuing with regard to all-digital (as opposed to hybrid digital) AM operations, and the record is not yet established on the technical standards needed to establish interference protection for digital-to-digital stations, much less digital-to-analog or digital-to-hybrid. The absence of a technical record leads the Commission to believe that it may be premature to discuss limiting the Expanded Band to all-digital operation; however it welcomes comments that include technical data that would further inform it on this issue.

21. Relaxed Main Studio Requirements. 47 CFR 73.1125(a) provides, in pertinent part, that “each AM, FM, and TV broadcast station shall maintain a main studio” at a location complying with paragraphs (a)(1) – (a)(3) of that section.<sup>1</sup> Moreover, the Commission has long held that a station must, at a minimum, maintain full-time managerial and full-time staff personnel at its main studio. Jones Eastern of the Outer Banks, Inc., Memorandum Opinion and Order, 6 FCC Rcd 3615, 3616 (1991).

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<sup>1</sup> The acceptable locations of a main studio are: (1) within the station’s community of license; (2) at any location within the principal community contour of any AM, FM, or TV broadcast station licensed to the station’s community of license; or (3) within 25 miles from the reference coordinates of the center of the station’s community of license as described in 47 CFR 73.208(a)(1).

Commenters Blount Masscom, Inc., et al. (Blount), note that the Commission often grants waivers of the main studio requirement to noncommercial educational (NCE) stations, allowing them to co-locate a station's main studio at the studio of another station licensed to the same licensee that may be outside the locations allowed by 47 CFR 73.1125(a), and that the rule language contemplates such waivers for commercial stations, although such waivers are seldom if ever granted. Blount proposes that AM station owners be allowed to request such waivers, or at a minimum that certain classes of AM stations, notably Class D stations, be allowed to do so. Blount further proposes that AM stations without co-owned main studios available should be allowed to adopt relaxed staffing requirements, such as requiring staffing only during part of the day or week, or allowing the use of technology to permit members of the public to contact station personnel who are not physically present at the main studio. Three other commenters support Blount's proposals.

22. The Commission has historically considered a station's main studio to constitute the location from which the station can adequately meet its function of serving the needs and interests of the residents of the station's community of license. This includes being adequately equipped to transmit programming, having a meaningful management and staff presence, and serving as a location for the station's public file. The Commission continues to emphasize a station's function of meeting the needs and interests of its community. At the same time, however, it is aware of the financial strain on many AM broadcasters. Moreover, advances in technology (e.g., e-mail, mobile telephone, Internet) can enable members of the community to contact station personnel without having to physically visit the main studio. In fact, the Commission has recently

proposed requiring AM and FM broadcast stations to post their public files to the Commission's online database, which would make them accessible without the need for visiting a station's offices or main studio. Expansion of Online Public File Obligations, Notice of Proposed Rule Making, 29 FCC Rcd 15943 (2014).

23. Despite these advances in accessibility to broadcast stations and their personnel, the Commission is reluctant to eliminate main studio requirements entirely, because of the aforementioned importance of the main studio to the goal of ensuring station compliance with local service obligations. The Commission therefore seeks comment on whether, and how, to modify the main studio rule in light of its goal in this proceeding to revitalize the AM service. Should it continue to address waivers of the main studio rule on a case-by-case basis, but be more open to such requests by commercial stations that can co-locate in studio facilities used by co-owned stations in a given market? Assuming that the Commission were to allow relaxation of the requirement that each station maintain a separate main studio, is there a maximum number of co-located stations that it should allow under one roof? If it were to allow co-location of two or more stations, should it further relax the requirements by allowing one or more of the stations to be located outside of the area dictated by 47 CFR 73.1125(a)(1) through (a)(3)? If one or more co-located stations are allowed to locate outside the rule requirements, should there be an absolute restriction on the distance a co-locating station may move its studio from its community of license? Moreover, should the Commission, as Blount suggests, relax the staffing requirement of full-time management and staff presence for AM stations that do not have co-owned stations with which to co-locate studio facilities? Should any such relaxation of staffing requirements necessarily be

limited to such “stand alone” AM stations? If the Commission were to relax staffing requirements, what if any conditions should be put in place to ensure that members of the public could contact station personnel and receive timely responses? Should it require that local mobile phone numbers for station management and staff be posted or otherwise publicized? Should any relaxation of main studio or staffing rules be linked to a station’s posting of its public file to the Commission online database? The Commission seeks comment addressing these and any other matters pertaining to AM stations’ maintenance of fully staffed local main studios. In particular, the Commission invites comment on the cost reductions that may result from modification of the main studio rule.

**Comments and Reply Comments.**

24. Pursuant to §§ 1.415 and 1.419 of the Commission’s rules, 47 CFR 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission’s Electronic Comment Filing System (ECFS). See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).

- All hand-delivered or messenger-delivered paper filings for the Commission’s Secretary must be delivered to FCC Headquarters at 445 12<sup>th</sup> Street, SW, Room TW-A325, Washington, DC 20554. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.
- Commercial Mail sent by overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

- U.S. Postal Service first-class, Express, and Priority mail should be addressed to 445 12<sup>th</sup> Street, SW, Washington, DC 20554.

25. This is a summary of the Commission's document FCC 15-142, Revitalization of the AM Radio Service, Further Notice of Proposed Rulemaking (FNPRM) and Notice of Inquiry (NOI), adopted on October 21, 2015 and released on October 23, 2015, in MB Docket No. 13-249. The full text of document FCC 15-142 will be available for public inspection and copying via ECFS, and during regular business hours at the FCC Reference Information Center, Portals II, 445 12<sup>th</sup> Street, SW, Room CY-A257, Washington, DC 20554. Document FCC 15-142 can also be downloaded in Word or Portable Document Format (PDF) at <http://www.fcc.gov/ndbedp>.

**Ex Parte Rules.**

26. This proceeding shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's ex parte rules. 47 CFR 1.1200 et seq. Persons making ex parte presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the ex parte presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments,

memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during ex parte meetings are deemed to be written ex parte presentations and must be filed consistent with 47 CFR 1.1206(b). In proceedings governed by 47 CFR 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.

#### **Initial Regulatory Flexibility Analysis.**

27. The Regulatory Flexibility Act of 1980, as amended (RFA), requires that a regulatory flexibility analysis be prepared for notice and comment rule making proceedings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.” The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.” In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act. A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).

28. As required by the RFA (5 U.S.C. 603), the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic



impact on a substantial number of small entities by the policies and rules proposed in the FNPRM. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the FNPRM provided in paragraph 94 of the FNPRM. The Commission will send a copy of this entire FNPRM, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA). In addition, the FNPRM and the IRFA (or summaries thereof) will be published in the Federal Register.

**Need For, and Objectives of, the Proposed Rules.**

29. This rulemaking proceeding is initiated to obtain further comments concerning certain proposals designed to revitalize the AM broadcast radio service. It is based in substantial part on proposals raised by commenters in this rulemaking proceeding, in response to the Commission's call in the original NPRM in this proceeding for further ideas and proposals.

30. Specifically, the Commission seeks comment on the following: (1) whether to change the nighttime and critical hours signal protection to Class A AM stations; (2) whether to change the methodology for calculating nighttime root sum square (RSS) values; (3) whether to change daytime signal protection to Class B, C, and D stations; (4) whether to revise the rule on where an FM cross-service translator station, re-broadcasting an AM station's signal, may be located relative to the AM station's transmitter; (5) whether to modify the rules governing partial proofs of performance of directional AM antenna arrays; (6) whether to modify the rules for method of moments proofs for directional AM antenna arrays; and (7) whether to require licensees holding

dual standard band-Expanded Band AM licenses to surrender one of the licenses within one year of release of the Second Report and Order in this proceeding.

**Legal Basis.**

31. The authority for this proposed rulemaking is contained in Sections 1, 2, 4(i), 303, 307, and 309(j) of the *Communications Act* of 1934, 47 U.S.C. 151, 152, 154(i), 303, 307, and 309(j).

**Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply.**

32. The RFA directs the Commission to provide a description of and, where feasible, an estimate of the number of small entities that will be affected by the proposed rules. The RFA generally defines the term "small entity" as encompassing the terms "small business," "small organization," and "small governmental entity." In addition, the term "small Business" has the same meaning as the term "small business concern" under the Small Business Act. A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.

**Radio Stations.**

33. The proposed rules and policies could apply to AM radio broadcast licensees, and potential licensees of the AM radio service. A radio broadcasting station is an establishment primarily engaged in broadcasting aural programs by radio to the public. Included in this industry are commercial, religious, educational, and other radio stations. Radio broadcasting stations which primarily are engaged in radio broadcasting and which produce radio program materials are similarly included. However, radio stations that are

separate establishments and are primarily engaged in producing radio program material are classified under another NAICS number. The SBA has established a small business size standard for this category, which is: firms having \$38.5 million or less in annual receipts. 13 CFR 121.201, NAICS code 515112 (updated for inflation in 2008).

According to the BIA/Kelsey, MEDIA Access Pro Database on October 15, 2015, 4,691 (99.94%) of 4,694 AM radio stations have revenues of \$38.5 million or less. Therefore, the majority of such entities are small entities. The Commission noted, however, that, in assessing whether a business concern qualifies as small under the above definition, business (control) affiliations must be included. See 13 CFR 121.103(a)(1). This estimate, therefore, likely overstates the number of small entities that might be affected by our action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. In addition, an element of the definition of “small business” is that the entity not be dominant in its field of operation. The Commission is unable at this time to define or quantify the criteria that would establish whether a specific radio station is dominant in its field of operation. Accordingly, the estimate of small businesses to which rules may apply do not exclude any radio station from the definition of a small business on this basis and therefore may be over-inclusive to that extent. Also as noted, an additional element of the definition of “small business” is that the entity must be independently owned and operated. It is difficult at times to assess these criteria in the context of media entities and Commission estimates of small businesses to which they apply may be over-inclusive to this extent.

**FM translator stations and Low-Power FM stations.**

34. The proposed policies could affect licensees of FM translator stations, as well as potential licensees in this radio service. The same SBA definition that applies to radio broadcast licensees would apply to these stations. The SBA defines a radio broadcast station as a small business if such station has no more than \$38.5 million in annual receipts. See 13 CFR 121.201, NAICS code 515112. Currently, there are approximately 6,422 licensed FM translator and booster stations. In addition, there are approximately 225 applicants with pending applications filed in the 2003 translator filing window. Given the nature of these services, it is presumed that all of these licensees and applicants qualify as small entities under the SBA definition.

**Description of Projected Reporting, Recordkeeping and Other Compliance Requirements.**

35. The proposed rule and procedural changes may, in some cases, impose different reporting, recordkeeping, or other requirements on existing and potential AM radio licensees and permittees. In the case of proposed changes to the technical rules regarding calculation of daytime and nighttime interfering contours, and changes to daytime, nighttime, and critical hours protection to some stations, there would be changes in the calculation of inter-station interference and reporting of same. However, the information to be filed is already familiar to broadcasters, and the nature of the interference calculations would not change, only the values that are acceptable, so any additional burdens would be minimal. Likewise, the proposed revision to the rules on where an FM translator providing fill-in service for an AM station may be sited will not require any additional calculations on the part of the AM station proposing to locate or relocate the translator. The proposal merely relaxes the siting requirement and expands

the area in which such a cross-service fill-in translator may be located. Thus, there should be no additional reporting or recordkeeping burdens, and compliance with the siting rules will be easier. The proposed modifications to the partial proof of performance and Method of Moments rules would not change any reporting or compliance requirements, insofar as AM licensees and applicants would not be required to submit such proofs or models more frequently than is now the case. The only changes would be to relax the requirements for making proofs of performance or method of moments models. Thus, the required submissions of such proofs and models would be less burdensome on AM broadcasters with directional antenna arrays that are required to submit such information. Finally, the proposal to require surrender of licenses held by broadcasters with paired standard band-Expanded Band AM stations will not change any reporting, recordkeeping, or other compliance requirements, and will in fact reduce such requirements for such licensees by 50 percent.

**Steps Taken to Minimize Significant Impact on Small Entities, and Significant Alternatives Considered.**

36. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities. 5 U.S.C. 603(b). In the FNPRM, the Commission seeks to assist AM

broadcasters by changing certain daytime, nighttime, and critical hours interference protection standards as they apply to certain classes of AM stations; proposes relaxing the rules on siting of FM translators providing fill-in service for AM broadcast stations; proposes to modify the measurement requirements for AM directional antenna system partial proofs of performance in order to make them less burdensome; and proposes to modify the rules for submitting method of moments models of proposed AM directional antenna systems, in order to make those rules less burdensome. The Commission also seeks either to reduce interference in the standard AM band or, alternatively, to create more spectrum in the Expanded AM Band, by requiring that the 25 remaining licensees holding paired authorizations in both bands surrender one of the paired licenses. Under the Commission's proposal, such a licensee would be given one year from adoption of this proposal in which to elect which authorization it would surrender. The Commission seeks comment as to whether its goal of revitalizing the AM service could be effectively accomplished through these means. The Commission is open to consideration of alternatives to the proposals under consideration, as set forth herein, including but not limited to alternatives that will minimize the burden on AM broadcasters, most of which are small businesses. There may be unique circumstances these entities may face, and the Commission will consider appropriate action for small broadcasters when preparing a Second Report and Order in this matter.

**Federal Rules Which Duplicate, Overlap, or Conflict With, the Commission's Proposals.**

37. None.

38. To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer and Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

**Ordering Clauses.**

39. Accordingly, IT IS ORDERED that, pursuant to sections 4(i), 301, 303(r), 316, and 403 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 301, 303(r), 316, 403, this Further Notice of Proposed Rule Making IS ADOPTED.

40. IT IS FURTHER ORDERED that, pursuant to Sections 1, 303(g), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 303(g), and 403, and Section 1.430 of the Commission's rules, 47 CFR 1.430, that this Notice of Inquiry IS ADOPTED.

**List of Subjects**

**47 CFR Part 73**

Communications equipment, Radio, Reporting and recordkeeping requirements.

**47 CFR Part 74**

Communications equipment, Radio.

FEDERAL COMMUNICATIONS COMMISSION

Gloria J. Miles,  
Federal Register Liaison Officer.  
Office of the Secretary.

## **Proposed Rule Changes**

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR parts 73 and 74 as follows:

### **PART 73—RADIO BROADCAST SERVICES**

1. The authority citation for part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 334, 336, and 339.

2. In §73.21 revise paragraphs (a) introductory text and (a)(1) to read as follows:

#### **§ 73.21 Classes of AM broadcast channels and stations.**

(a) Clear channel. A clear channel is one on which stations are assigned to serve wide areas. These stations are protected from objectionable interference within their primary service areas. Stations operating on these channels are classified as follows:

(1) Class A station. A Class A station is an unlimited time station that operates on a clear channel and is designed to render primary service over an extended area at relatively long distances from its transmitter. Its primary service area is protected from objectionable interference from other stations on the same and adjacent channels. The operating power shall not be less than 10 kW nor more than 50 kW. (Also see §73.25(a)).

\* \* \* \* \*

#### **§73.24 [Amended]**



3. In §73.24 remove paragraph (h) and redesignate paragraphs (i) and (j) as paragraphs (h) and (i), respectively.
4. In §73.37 revise the table following paragraph (a) to read as follows:

**§ 73.37 Applications for broadcast facilities, showing required.**

(a) \* \* \*

Frequency Separation (kHz)	Contour of proposed station (classes B, C and D) (mV/m)	Contour of any other station (mV/m)
0	0.005 0.100 2.0	0.100 (Class A) 2.0 (Other classes) 0.100 (Other classes)
10	0.500 2.0	0.500 (Class A) 2.0 (Other classes)
20	25.0	25.0 (All classes)

\* \* \* \* \*

5. In §73.151 revise paragraph (c)(3) to read as follows:

**§ 73.151 Field strength measurements to establish performance of directional antennas.**

\* \* \* \* \*

(c) \* \* \*

(3) When the application for an initial license for a directional antenna system is submitted that is based on computer modeling and sample system verification, reference field strength measurement locations shall be established in the directions of pattern minima and maxima. On each radial corresponding to a pattern minimum or maximum, there shall be at least three measurement

locations. The field strength shall be measured at each reference location at the time of the proof of performance. The license application shall include the measured field strength values at each reference point, along with a description of each measurement location, including GPS coordinates and datum reference. New reference field strength measurements are not required for subsequent license applications for the same directional antenna system and physical facilities.

6. In § 73.154, revise paragraph (a) to read as follows:

**§ 73.154 AM directional antenna partial proof of performance measurements.**

(a) A partial proof of performance consists of at least 8 field strength measurements made on each of the radials that includes a monitoring point.

\* \* \* \* \*

**§73.155 [Removed]**

7. Remove § 73.155.
8. Revise §73.182 to read as follows:

**§ 73.182 Engineering standards of allocation.**

(a) Sections 73.21 to 73.37, inclusive, govern allocation of facilities in the AM broadcast band 535-1705 kHz. §73.21 establishes three classes of channels in this band, namely, clear, regional and local. The classes and power of AM broadcast stations which will be assigned to the various channels are set forth in §73.21. The classifications of the AM broadcast stations are as follows:

(1) Class A stations operate on clear channels with powers between 10 kW and 50 kW. These stations are designed to render primary service over a large area protected from objectionable interference from other stations on the same and adjacent channels. Class A stations may be divided into two groups: those located in any of the conterminous United States and those located in Alaska.

(i) Class A stations in the conterminous United States operate on the channels assigned by §73.25 with minimum power of 10 kW, maximum power of 50 kW, and minimum antenna efficiency of 275 mV/m/kW at 1 kilometer. The Class A stations in this group are afforded protection, both daytime and nighttime, to the 0.1 mV/m groundwave contour from other stations on the same channel, and are afforded both daytime and nighttime protection to the 0.5 mV/m groundwave contour from other stations on first adjacent channels.

(ii) Class A stations in Alaska operate on the channels assigned by §73.25 with minimum power of 10 kW, maximum power of 50 kW, and minimum antenna efficiency of 215 mV/m/kW at 1 kilometer. The Class A stations in this group are afforded protection, both daytime and nighttime, to the 0.1 mV/m groundwave contour from other stations on the same channel and to the 0.5 mV/m groundwave contour from other stations on first adjacent channels.

(2) Class B stations are stations which operate on clear and regional channels with powers not less than 0.25 kW or greater than 50 kW. These stations render primary service, the area of which depends on their geographic location, power, and frequency. It is recommended that Class B stations be located so that the interference received from other stations will not limit the service area to a

groundwave contour value greater than 2.0 mV/m groundwave contour both daytime and nighttime, which are the values for the mutual protection between this class of stations and other stations of the same class.

(3) Class C stations operate on local channels, normally rendering primary service to a community and the suburban or rural areas immediately contiguous thereto, with powers not less than 0.25 kW or greater than 1 kW, except as provided in §73.21(c)(1). Such stations are normally protected to the daytime 2.0 mV/m contour. On local channels the separation required for the daytime protection shall also determine the nighttime separation. Where directional antennas are employed daytime by Class C stations operating with power equal to or greater than 0.25 kW, the separations required shall in no case be less than those necessary to afford protection assuming nondirectional operation with power of 0.25 kW. In no case will nighttime power of 0.25 kW or greater be authorized to a station unable to operate nondirectionally with power of 0.25 kW during daytime hours. The actual nighttime limitation will be calculated. For nighttime protection purposes, Class C stations in the 48 conterminous United States may assume that stations in Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands operating on 1230, 1240, 1340, 1400, 1450, and 1490 kHz are Class C stations.

(4) Class D stations operate on clear and regional channels with daytime powers of not less than 0.25 kW (or equivalent RMS field of 107.5 mV/m at 1 kilometer if less than 0.25 kW) and not more than 50 kW. Class D stations that have previously received nighttime authority to operate with powers of less 0.25 kW

(or equivalent RMS fields of less than 107.5 mV/m at 1 kilometer) are not required to provide nighttime coverage in accordance with § 73.24(i) and are not protected from interference during nighttime hours. Such nighttime authority is permitted on the basis of full nighttime protection being afforded to all Class A and Class B stations.

Note to paragraph (a): See §§73.21(b)(1) and 73.26(b) concerning power restrictions and classifications relative to Class B, Class C, and Class D stations in Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands. Stations in the above-named places that are reclassified from Class C to Class B stations under §73.26(b) shall not be authorized to increase power to levels that would increase the nighttime interference-free limit of co-channel Class C stations in the conterminous United States.

(b) When a station is already limited by interference from other stations to a contour value greater than that normally protected for its class, the individual received limits shall be the established standard for such station with respect to interference from each other station.

(c) All classes of AM broadcast stations have in general three types of service areas, *i.e.*, primary, secondary and intermittent. (See §73.14 for the definitions of primary, secondary and intermittent service areas.) All classes of AM stations render service to a primary area but the secondary and intermittent service areas may be materially limited or destroyed due to interference from other stations, depending on the station assignments involved.

(d) The groundwave signal strength required to render primary service is 2 mV/m for communities with populations of 2,500 or more and 0.5 mV/m for communities with populations of less than 2,500. Because only Class A stations have protected primary service extending beyond the 2 mV/m contour, the groundwave signal strength constituting primary service for Class A stations is that set forth in paragraphs (a)(1)(i) and (ii) of this section. See §73.184 for curves showing distance to various groundwave field strength contours for different frequencies and ground conductivities, and also see §73.183, “Groundwave signals.”

(e) A Class C station may be authorized to operate with a directional antenna during daytime hours providing the power is at least 0.25 kW. In computing the degrees of protection which such antenna will afford, the radiation produced by the directional antenna system will be assumed to be no less, in any direction, than that which would result from non-directional operation using a single element of the directional array, with 0.25 kW.

(f) All classes of broadcast stations have primary service areas subject to limitation by fading and noise, and interference from other stations to the contours set out for each class of station.

(g) Broadcast stations are licensed to operate unlimited time, limited time, daytime, share time, and specified hours. (See §§73.1710, 73.1725, 73.1720, 73.1715, and 73.1730.) Applications for new stations shall specify unlimited time operation only.

(h) Section 73.24 sets out the general requirements for modifying the facilities of a licensed station and for establishing a new station. Sections 73.24(b) and 73.37 include interference related provisions that be considered in connection with an application to modify the facilities of an existing station or to establish a new station. Section 73.30 describes the procedural steps required to receive an authorization to operate in the 1605-1705 kHz band.

(i) Objectionable nighttime interference from a broadcast station occurs when, at a specified field strength contour with respect to the desired station, the field strength of an undesired co-channel station exceeds for 10% or more of the time the values set forth in these standards. The value derived from the root-sum-square of all interference contributions represents the extent of a station's interference-free coverage.

(1) With respect to the root-sum-square (RSS) values of interfering field strengths referred to in this section, calculation of nighttime interference-free service is accomplished by considering co-channel signals in order of decreasing magnitude, adding the squares of the values and extracting the square root of the sum, excluding those signals which are less than 50% of the RSS values of the higher signals already included. This is known as the “50% Exclusion Method.”

(2) The RSS value will not be considered to be increased when a new interfering signal is added which is less than the appropriate exclusion percentage as applied to the RSS value of the interference from existing stations, and which at the same time is not greater than the smallest signal included in the RSS value of interference from existing stations.

(3) It is recognized that application of the 50% Exclusion Method for calculating the RSS interference may result in some cases in anomalies wherein the addition of a new interfering signal or the increase in value of an existing interfering signal will cause the exclusion of a previously included signal and may cause a decrease in the calculated RSS value of interference. In order to provide the Commission with more realistic information regarding gains and losses in service (as a basis for determination of the relative merits of a proposed operation) the following alternate method for calculating the proposed RSS values of interference will be employed wherever applicable.

(4) In cases where it is proposed to add a new interfering signal which is not less than 50% of the RSS value of interference from existing stations or which is greater than the smallest signal already included to obtain this RSS value, the RSS limitation after addition of the new signal shall be calculated without excluding any signal previously included. Similarly, in cases where it is proposed to increase the value of one of the existing interfering signals which has been included in the RSS value, the RSS limitation after the increase shall be calculated without excluding the interference from any source previously included.

(5) If the new or increased signal proposed in such cases is ultimately authorized, the RSS values of interference to other stations affected will thereafter be calculated by the 50% Exclusion Method without regard to this alternate method of calculation.

(6) Examples of RSS interference calculations:

(i) Existing interferences:



Station No. 1—1.00 mV/m.

Station No. 2—0.60 mV/m.

Station No. 3—0.59 mV/m.

Station No. 4—0.58 mV/m.

The RSS value from Nos. 1, 2 and 3 is 1.31 mV/m; therefore interference from No. 4 is excluded for it is less than 50% of 1.31 mV/m.

(ii) Station A receives interferences from:

Station No. 1—1.00 mV/m.

Station No. 2—0.60 mV/m.

Station No. 3—0.59 mV/m.

It is proposed to add a new limitation, 0.68 mV/m. This is more than 50% of 1.31 mV/m, the RSS value from Nos. 1, 2 and 3. The RSS value of Station No. 1 and of the proposed station would be 1.21 mV/m which is more than twice as large as the limitation from Station No. 2 or No. 3. However, under the above provision the new signal and the three existing interferences are nevertheless calculated for purposes of comparative studies, resulting in an RSS value of 1.47 mV/m.

However, if the proposed station is ultimately authorized, only No. 1 and the new signal are included in all subsequent calculations for the reason that Nos. 2 and 3 are less than 50% of 1.21 mV/m, the RSS value of the new signal and No. 1.

(iii) Station A receives interferences from:

Station No. 1—1.00 mV/m.

Station No. 2—0.60 mV/m.

Station No. 3—0.59 mV/m.

No. 1 proposes to increase the limitation it imposes on Station A to 1.21 mV/m.

Although the limitations from stations Nos. 2 and 3 are less than 50% of the 1.21 mV/m limitation, under the above provision they are nevertheless included for comparative studies, and the RSS limitation is calculated to be 1.47 mV/m.

However, if the increase proposed by Station No. 1 is authorized, the RSS value then calculated is 1.21 mV/m because Stations Nos. 2 and 3 are excluded in view of the fact that the limitations they impose are less than 50% of 1.21 mV/m.

(j) Objectionable nighttime interference from a station shall be considered to exist to a station when, at the field strength contour specified in paragraph (o) of this section with respect to the class to which the station belongs, the field strength of an interfering station operating on the same channel exceeds for 10% or more of the time the value of the permissible interfering signal set forth opposite such class in paragraph (o) of this section.

(k) For the purpose of estimating the coverage and the interfering effects of stations in the absence of field strength measurements, use shall be made of Figure 8 of §73.190, which describes the estimated effective field (for 1 kW power input) of simple vertical omnidirectional antennas of various heights with ground systems having at least 120 quarter-wavelength radials. Certain approximations, based on the curve or other appropriate theory, may be made

when other than such antennas and ground systems are employed, but in any event the effective field to be employed shall not be less than the following:

Class of station	Effective field (at 1 km)
All Class A (except Alaskan) .....	275 mV/m.
Class A (Alaskan), B and D .....	215 mV/m.
Class C .....	180 mV/m.

Note (1) to paragraph (k): When a directional antenna is employed, the radiated signal of a broadcasting station will vary in strength in different directions, possibly being greater than the above values in certain directions and less in other directions depending upon the design and adjustment of the directional antenna system. To determine the interference in any direction, the measured or calculated radiated field (unattenuated field strength at 1 kilometer from the array) must be used in conjunction with the appropriate propagation curves. (See §73.185 for further discussion and solution of a typical directional antenna case.)

Note (2) to paragraph (k): For Class B stations in Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands, 180 mV/m shall be used.

(l) The existence or absence of objectionable groundwave interference from stations on the same or adjacent channels shall be determined by actual measurements made in accordance with the method described in §73.186, or in the absence of such measurements, by reference to the propagation curves of §73.184. The existence or absence of objectionable interference due to skywave propagation shall be determined by reference to Formula 2 in §73.190.

(m) Computation of skywave field strength values:

- (1) Fifty percent skywave field strength values. To compute fifty percent skywave field strength values, Formula 1 of § 73.190, entitled “Skywave field strength, 50% of the time (at SS+6)” shall be used.
- (2) Ten percent skywave field strength values. In computing the 10% skywave field strength for stations on a single signal or an RSS basis, Formula 2 in §73.190 shall be used.
- (3) Determination of angles of departure. In calculating skywave field strength for stations on all channels, the pertinent vertical angle shall be determined by use of the formula in §73.190(d).
- (n) The distance to any specified groundwave field strength contour for any frequency may be determined from the appropriate curves in §73.184 entitled “Ground Wave Field Strength vs. Distance.”
- (o) Normally protected service contours and permissible interference signals for broadcast stations are as follows (for Class A stations, see also paragraph (a) of this section):

Class of station	Class of channel used	Signal strength contour of area protected from objectionable interference (µV/m)		Permissible interfering signal (µV/m)	
		Day <sup>1</sup>	Night <sup>1</sup>	Day <sup>1</sup>	Night
A	Clear	SC 100	SC 100	SC 5	SC 5 <sup>1</sup>
B	Clear	AC 500	AC 500	AC 500	AC 500 <sup>1</sup>
C	Regional	2000	2000	SC 100	25 <sup>2</sup>
D	Local	2000	Not presc. <sup>3</sup>	AC 2000	Not presc.
	Clear	2000	Not presc.	SC 100	Not presc.
	Regional			SC 100	Not presc.
				AC 2000	Not presc.

<sup>1</sup> Groundwave.

<sup>2</sup> Skywave field strength for 10 percent or more of the time.

<sup>3</sup> During nighttime hours, Class C stations in the contiguous 48 States may treat all Class B stations assigned to 1230, 1240, 1340, 1400, 1450, and 1490 kHz in Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands as if they were Class C stations.

Note: SC = Same channel; AC = Adjacent channel; SW = Skywave; GW = Groundwave

(p) The following table of logarithmic expressions is to be used as required for determining the minimum permissible ratio of the field strength of a desired to an undesired signal. This table shall be used in conjunction with the protected contours specified in paragraph (q) of this section.

Frequency separation of desired to undesired signals (kHz)	Desired Groundwave to:	
	Undesired groundwave (dB)	Undesired 10% Skywave (dB)
0	26	26
10	0	0

(q) Two stations, one with a frequency twice of the other, should not be assigned in the same groundwave service area unless special precautions are taken to avoid interference from the second harmonic of the station operating on the lower frequency. Additionally, in selecting a frequency, consideration should be given to the fact that occasionally the frequency assignment of two stations in the same

area may bear such a relation to the intermediate frequency of some broadcast receivers as to cause “image” interference, However, since this can usually be rectified by readjustment of the intermediate frequency of such receivers, the Commission, in general, will not take this kind of interference into consideration when authorizing stations.

(r) The groundwave service of two stations operating with synchronized carriers and broadcasting identical programs will be subject to some distortion in areas where the signals from the two stations are of comparable strength. For the purpose of estimating coverage of such stations, areas in which the signal ratio is between 1:2 and 2:1 will not be considered as receiving satisfactory service.

Note to paragraph (r): Two stations are considered to be operated synchronously when the carriers are maintained within 0.2 Hz of each other and they transmit identical programs.

**§73.187[Removed]**

9. Remove § 73.187.

**PART 74—EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCAST  
AND OTHER PROGRAM DISTRIBUTIONAL SERVICES**

10. The authority citation for part 74 continues to read as follows:

Authority: 47 U.S.C. 154, 302a, 303, 307, 309, 336 and 554.

11. In §74.1201, revise paragraph (g) to read as follows:

**§ 74.1201 Definitions.**

\* \* \* \* \*

(g) Translator coverage contour. For a fill-in FM translator rebroadcasting an FM radio broadcast station as its primary station, the FM translator's coverage contour must be contained within the primary station's coverage contour. For purposes of this rule section, the coverage contour of the FM translator has the same field strength value as the protected contour of the primary FM station (*i.e.*, for a commercial Class B FM station it is the predicted 0.5 mV/m field strength contour, for a commercial Class B1 FM station it is the predicted 0.7 mV/m field strength contour, and for all other classes of FM stations it is the predicted 1 mV/m field strength contour). The coverage contour of an FM translator rebroadcasting an AM radio broadcast station as its primary station must be contained within the greater of either the 2 mV/m daytime contour of the AM station or a 25-mile (40 km) radius centered at the AM transmitter site, but the translator's 1 mV/m coverage contour may not extend beyond a 40-mile (64 km) radius centered at the AM transmitter site. The protected contour for an FM translator station is its predicted 1 mV/m contour.

\* \* \* \* \*

[FR Doc. 2015-31949 Filed: 1/15/2016 8:45 am; Publication Date: 1/19/2016]